



IPW
PATENTS
Attorney Docket No. CWO-002.02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Yoram Rudy)
Application No: 10/807,941)
Filed: March 24, 2004)
For: ELECTROPHYSIOLOGICAL)
CARDIAC MAPPING SYSTEM)
BASED ON A NON-CONTACT)
NON-EXPANDABLE MINIATURE)
MULTI-ELECTRODE CATHETER)
AND METHOD THEREFOR)
Art Unit: 3736
Confirmation No.: 5129
Examiner: Not yet assigned

CERTIFICATE OF MAILING

I hereby certify that the following paper is being deposited with the United States Postal Service as first-class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 6, 2004.



Shirine Darvish

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION-DISCLOSURE STATEMENT

The above-referenced application claims priority to USSN 09/463,427 filed on January 21, 2000. Accordingly, Applicants request that all documents made of record in USSN 09/463,427 be made of record in the present application. Photocopies are submitted herewith of Form PTO-1449 filed in USSN 09/463,427 with Information Disclosure Statements on March 15, 2001 and May 30, 2001. In accordance with 37 CFR § 1.98(d)(2), no copies of the references cited in these Forms PTO 1449 are

enclosed herewith, because the Information Disclosure Statements filed in USSN 09/463,427 complied with 37 CFR 1.98 sections (a) through (c).

In addition, a further Form PTO 1449 is filed listing references cited by the Examiner in USSN 09/463,427.

This submission does not represent that a search has been made or that no better art exists. Nor does it constitute an admission that the cited documents are material or constitute "prior art." If the Examiner applies the listed documents as prior art against any claim in the application and Applicants determine that the cited documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the claims over the listed documents, should one or more of the referenced documents be applied against the claims of the present application.

This Information Disclosure Statement is being filed before the first office action; therefore, no fees are due. However, the Commissioner is authorized to credit any overpayment or charge any deficiencies to/from our Deposit Account, **No. 06-1448; Ref. No. CWO-002.02.**

Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at (617) 832-1230.

Respectfully submitted,



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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

 APPLICANT(S)' INFORMATION DISCLOSURE STATEMENT MAR 19 2001	Atty. Docket No.: CWR 2 0247	Serial No.: 09/463,427
	Applicant(s): Yoram Rudy	
	Filing Date: March 29, 2000	Group: 3736

U.S. PATENT DOCUMENTS

Initial*	Document No.	Date	Name	Class	Subcl.	Filing Date
AA	5,568,809	29 Oct 1996	Ben-haim			12 Jul 1995
AB	5,553,611	10 Sep 1996	Budd et al.			20 Jan 1995
AC	5,487,391	30 Jan 1996	Panescu			28 Jan 1994
AD	5,433,198	18 Jul 1995	Desai			11 Mar 1993
AE	5,297,549	29 Mar 1994	Beatty et al.			23 Sep 1992
AF	4,649,924	17 Mar 1987	Taccardi			08 Jul 1985

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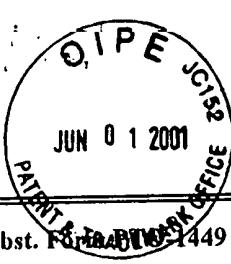
	Document No.	Date	Country	Class	Subcl.	Translation?
AG						

OTHER ART

AH	Khoury DS, B. Taccardi, Lux RUL, Ershler PR, Rudy Y., "Reconstruction of endocardial potentials and activation sequences from intracavitory probe measurements". <u>Circulation</u> 1995; 91:845-863.
AI	Rudy Y, Messinger-Rapport BJ, "The inverse problem in electrocardiography solutions in terms of epicardial potentials,: <u>CRC Crit Rev Biomed Eng.</u> , 16:215-268 (1988).
AJ	Rudy Y, Oster HS, "The electrocardiographic inverse problem, " <u>CRC Crit Rev Biomed Eng.</u> , 20:25-46 (1992)
AK	Messinger-Rapport BJ, Rudy Y, "Computational issues of importance to the inverse recovery of epicardial potentials in a realistic heart-torso geometry," <u>Math Biosci</u> , 97:85-120 (1989) (published erratum in <u>Math Biosci</u> , 99(1):147 (1990 April)).
AL	Oster HS, Rudy Y, "The use of temporal information in the regularization of the inverse problem of electrocardiography," <u>IEEE Trans Biomed Eng</u> , 39:65-75 (1992)
AM	Messinger, Rapport BJ, Rudy Y, "Regularization of the inverse problem in electrocardiography. A model study," <u>Math Biosci</u> , 89:79-118 (1988)
AN	Colli-Franzone P., Guerri L., Taccardi B., Viganotti C., "Finite element approximation of regularized solutions of the inverse potential problem of electrocardiography and applications to experimental data", <u>Calcolo</u> 1985, 22:91-186
AO	Colli-Franzone P., Guerri L., Taccardi B., Viganotti C., "Mathematical procedure for solving the inverse problem of electrocardiography," <u>Math Biosci</u> , 77:353-96 (1985)
AP	Endocardial Solutions Brochure, "Advanced Diagnostic Solutions for Complex Cardiac Arrhythmias"

Examiner: *Edna. L.*Date Considered: *1/21/*

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if in conformance and not considered. Include copy of this form with next communication to applicant.



APPLICANT'S(S') INFORMATION DISCLOSURE STATEMENT	Subst. Filing Date: 01-08-2001	Atty. Docket No.: CWR 2 0247	RECEIVED Serial No. 09/443,427
		Applicant(s): Yoram Rudy	JUN 05 2001
		Filing Date: March 29, 2000	TECHNOLOGY CENTER R3700 Group: 3736

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Initial*		Document No.	Date	Name	Class	Subcl.	Filing Date
AA		4,203,451	20 May 1980	Panico			17 Mar 1978
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AJ		5,311,873	17 May 1994	Savard et al.			28 Aug 1992
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AL		5,503,149	02 Apr 1996	Beavin			27 Dec 1993
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AO		Rudy Y, Taccardi B, "Noninvasive Imaging and Catheter Imaging of Potentials, Electrograms, and Isochrones on the Ventricular Surfaces, <i>Journal of Electrocardiology</i> , Vol. 30 Supplement, (1998) pgs. 19-23				
AP		Oster HS, Rudy Y, "Regional Regularization of the Electrocardiographic Inverse Problem: A Model Study Using Spherical Geometry", <i>IEEE Transactions on Biomedical Engineering</i> , Vol. 44, No. 2, February 1997, pgs. 188-199.				
AR		Burnes JE, Kaelber DC, Taccardi B, Lux RL, Ershler PH, Rudy Y, "A field-Compatible Method For Interpolating Biopotentials", <i>Annals of Biomedical Engineering</i> , Vol. 26, pp. 37-47, 1998.				
Examiner:	Espinil			Date Considered: 6/21		

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Subst. Form PTO-1449 APPLICANT(S) INFORMATION DISCLOSURE STATEMENT MAR 19 2001	Atty. Docket No.: CWR 2 0247	Serial No.: 09/463,427
Applicant(s): Yoram Rudy		
Filing Date: March 29, 2000		Group: 3736

U.S. PATENT DOCUMENTS

Initial*		Document No.	Date	Name	Class	Subcl.	Filing Date
	BA						
	BB						
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	BE						

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	BF	Liu ZW, Jia P., Ershler PR, Taccardi B., Lux RL, Khouri, DS, Rudy Y., "Noncontact Endocardial Mapping: Reconstruction of Electrograms and Isochrones From Intracavitory Probe Potentials". <u>Journal of Cardiovascular Electrophysiology</u> , 1997; 8:415-431.
	BG	Jia P., "Noncontact catheter for electrophysiological cardia mapping", Case Western Reserve University, Department of Biomedical Engineering, January 1998.
	BH	Liu ZW, "Inverse reconstruction of endocardial potentials, electrograms and activation sequences from intracavitory probe potential measurements", Case Western Reserve University, Department of Biomedical Engineering, August 1996.
	BI	
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TC 3700 MAIL ROOM
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Examiner: *Ershler*Date Considered: *3/8/01*

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